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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 08/984,979 | 12/04/1997 | THOMAS M. BAER | 485772000400 | 2970 |

7590

02/25/2003

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EXAMINER

NGUYEN, TU T

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/984,997

Applicant(s)

LIBERMAN, ISIDOR

Examiner

Tu T Nguyen

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 and 49-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-44 is/are allowed.
- 6) ☒ Claim(s) 49-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Serial Number: 08/984,979
Filing Date: 12/04/97

Detailed Office Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 49-50,52,63,70 are rejected under 35 U.S.C. 102(a) as being anticipated by Liotta et al (5,843,657).

With respect to claims 49,63, Liotta discloses a Laser Capture Microdissection (LCM hereinafter) system comprising: a transfer film carrier or a cap 5 (fig 2a), a LCM film coupled to the carrier 6 (fig 2a).

With respect to claim 50, the expanded transfer film would have been inherent because the transfer film need expands and projects itself away from the substrate in order to pick only a wanted tissue.

With respect to claims 52,70, Liotta does not explicitly disclose a transfer film contains an absorptive substance. However, the claimed limitation would have been inherent because the transfer film is made from a certain material and it would have been obvious that each

different material would absorb a certain wavelength.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 51,53-62,64-69,71-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liotta et al (5,843,657) in view of Shigematsu et al (5,427,950) and in further view of Nagahara et al (3,995,941).

With respect to claims 64,77, Liotta in view of Shigematsu do not disclose a plate. however, it would have been obvious to modify Liotta with a plate to hold the LCM cap to make the system easier to operate or it easier to hold a multiple caps which make the testing process faster.

With respect to claims 51,53-57,71-76, The claimed limitations would have been a design choice, since the general conditions of the invention are described by the prior art, modifying the prior art with a scattering media or hot vacuum bake or transparent glue or a negative draft or diffuser involve only routine skill in the art.

With respect to claims 58-60, Liotta discloses the claimed invention except for the

transfer film thickness or length of the spacer. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the prior art system with different film thickness or different spacer length, since it would have been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

With respect to claim 61, a pedestal that protrudes and defines an acquisition zone is well known in the art, i.e. a cookie cutter. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the claimed pedestal with a transfer film to make the system more accurate. Further, Shigematsu discloses a spacer 3 (fig 1) to define a shape of the sample 11 (fig 1).

With respect to claim 62, the claimed pedestal that runs at least three points of a perimeter would have been a design choice. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the shape or area of the pedestal to meet a design choice. Further, Shigematsu discloses at least three protrusions of spacer (column 2, lines 65-68).

With respect to claims 65-67, Buck discloses the claimed invention except for the release layer. A release layer consisting of silicones and polytetrafluoroethylenes is well known in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the Buck's system with a release layer to make the system

easier to clean or easier to handle the tissue.

With respect to claim 68, Liotta discloses a cap 5 (fig 2a). However, Liotta fails to disclose a Plano-concave void. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Liotta's cap with a Plano-concave void to make the system more efficient.

With respect to claim 69, Liotta does not explicitly disclose a transparent thermoplastic for the LCM. Since Liotta's system use a laser to heat the LCM film so that the heated portion of the LCM film can stick to the selected sample portion, skilled artisan would have been motivated to transparent thermoplastic for the LCM film to make the system transferring the sample more accurate.

Allowable Subject Matter

Claims 1-44 are allowed.

Prior arts of record fail to disclose a laser capture microdissection transfer film coupled to a substrate surface of the transfer film carrier, wherein the LCM transfer film includes at least one integrally formed structural feature that protrudes and provides a controllable spacing between the LCM transfer film and a sample.

Response to Arguments

Applicant's arguments with respect to claims 1-44,49-77 have been considered but are moot in

view of the new ground(s) of rejection.

Response to Arguments

Applicant's arguments with respect to claims 1-44,49-77 have been considered but are moot in view of the new ground(s) of rejection.

With respect to Applicant's argument about the 102 (b) rejection, Examiner withdraw the 102 (b) rejection and replace with the 102 (a) rejection.

In response to applicant's arguments, the recitations "Integral portion of a biological reaction vessel", "a microcentrifuge tube cap" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Even though Applicant add the limitations "integral portion of a biological reaction vessel", "a microcentrifuge tube cap" to the body of the claims. It still not overcome the obviousness rejection because an ordinary skill in the art has been motivated to convert the transfer film into a cap for easier handling. The modification involves only routine skill in the art. Since Applicant does not specifically describe the function and the arrangement of the

integral portion of a biological reaction vessel , it would have been a design choice to modify the transfer film into the integral portion of a biological reaction vessel for different tests sample.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the modification is found in the knowledge generally available to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T Nguyen whose telephone number is (703) 306-9185. The examiner can normally be reached on M-T 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Tuan Nguyen', with a long, sweeping horizontal line extending to the right.

Tu Tuan Nguyen

Patent Examiner TC 2877

2/21/03